THREE-DIMENSIONAL SPATIAL FILTERING APPARATUS AND METHOD

ABSTRACT OF THE DISCLOSURE

For the purpose of conducting three-dimensional spatial filtering with coefficients dependent upon a pixel value throughout a three-dimensional image, in conducting filtering on the three-dimensional image by a three-dimensional spatial filter, coefficients of the three-dimensional spatial filter are changed according to a property of a pixel value of the three-dimensional image. The property of the pixel value is represented by the pixel-of-interest value, the average pixel value, maximum pixel value, minimum pixel value, or median pixel value of the pixel-of-interest and its neighboring pixels, or the property of the pixel value, the sum of absolute values or the square sum of the differences between pixel values of the pixel-of-interest value and the other pixels.